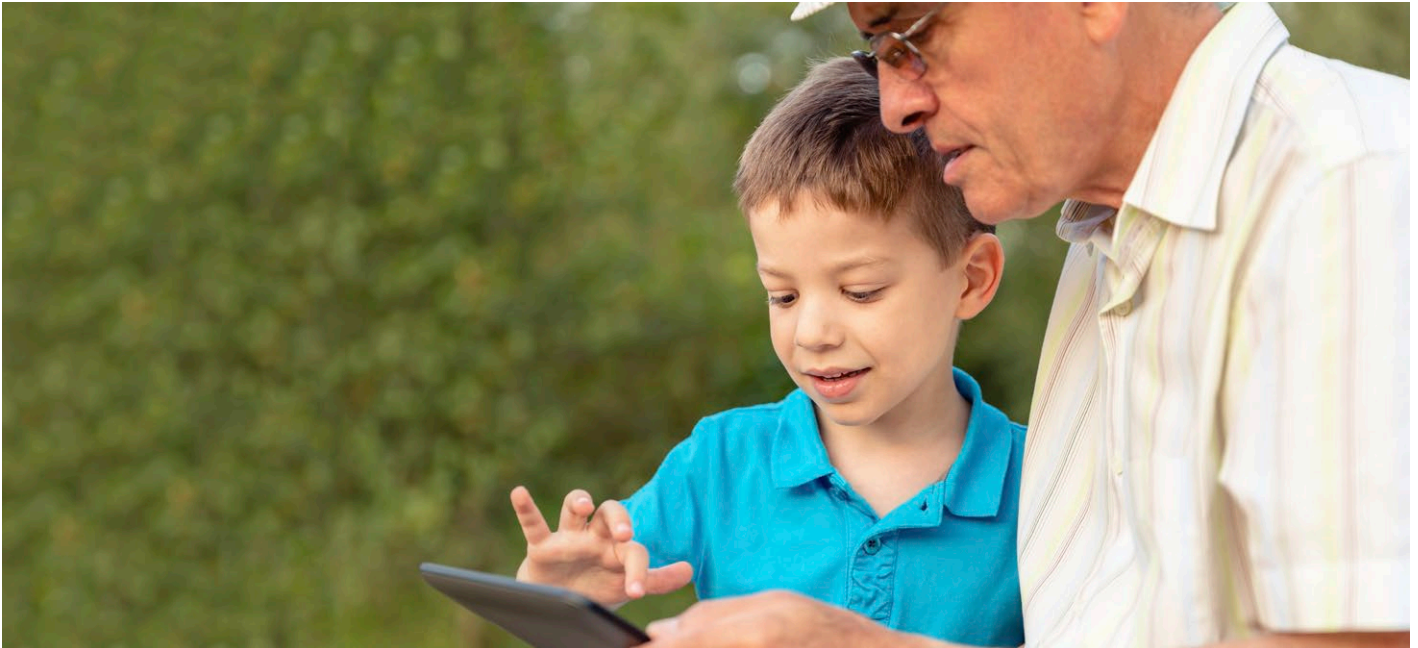
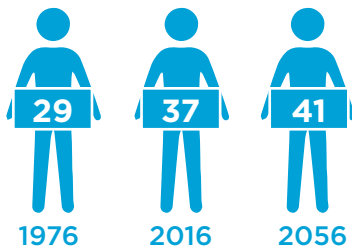


# OVERVIEW: FUTURE STATE NSW 2056



## NSW AGEING POPULATION



**The median age will rise to 41 in 2056.**

**The NSW economy is the strongest in the nation. Strong fiscal management over the past five years has ensured we are in surplus with low debt.**

We are strongly placed to face the future. Today we are collectively wealthier, living longer and better educated than ever before. However, we know this is not the case for everyone. And there will be challenges to our continued prosperity; some of which are visible today and others, like the recent Global Financial Crisis, will come as shocks.

For many years, we reaped the benefits of a large working age population, thanks to the baby boomers. Our incomes and lifestyles have improved and our expectations of access to quality services and infrastructure have grown.

But the NSW population is ageing. The median age is up from 29 in 1976 to 37 in 2015 and will rise to 41 in 2056. This is mostly because of the relative size of the baby boomer generation, which had fewer children than required to replace itself. That group is now moving into traditional retirement age, which will last longer than any generation before. As the population ages, workforce participation declines and the rate of economic growth naturally slows.

An ageing population causes demands for services and infrastructure to grow, so expenditure growth remains high, particularly for health services. Revenue growth is unlikely to keep pace for two reasons. The first is the ageing population and the second is a longer-term trend of slower growth in grants from the Commonwealth Government.

If we allow current trends to continue, a widening fiscal gap will emerge between what the state government receives, and what it spends on the services and infrastructure people expect. Expenditure would exceed revenues resulting in a fiscal gap<sup>1</sup> of 3.4 per cent of GSP by 2056, which is equivalent to \$17 billion if applied to today's GSP. If this eventuates, net debt would rise from around one per cent today to almost 75 per cent of GSP in 2056. A fifth of revenues would have to go from services to meet interest payments alone.

In reality, the *Fiscal Responsibility Act 2012 (FRA)* would prevent this from occurring, as governments are required to implement corrective measures. But we cannot afford to do nothing. This long-run fiscal position is unsustainable and we need to address the challenge. This Report examines the choices available to Government to ensure our future is one where the living standard of our citizens continues to be world-class.

This Report contains our best projections of our fiscal future. It is important to remember that these are not predictions, but simply reasonable estimates of what might happen if Government does not intervene.

<sup>1</sup> The fiscal gap is the projected change in revenues less expenditures over the projection period (2014-15 to 2055-56) – including net capital expenditure, but excluding interest transactions – as a percentage of GSP

PROJECTED POPULATION  
FOR NEW SOUTH WALES

# 11.2m

An increase of 3.7 million people to 2056.

## 1. Where is New South Wales heading?

### The NSW economy will continue to grow but more slowly due to an ageing population

The three drivers of growth in the NSW economy over the next 40 years will be population, participation and productivity.<sup>2</sup>

The NSW **population** is projected to grow by around 1.0 per cent each year, to 11.2 million in 2056. That is 3.7 million more people than we have today. Around half of this increase is due to natural increase and half is from migration.

*The fertility rate* is the number of children a woman has over her life, and it is expected to move to 1.95. This is below the replacement rate for the NSW population (currently 2.1).

*Life expectancy* has increased dramatically, thanks to rapid advances in medical technologies and healthier lifestyles. In the early twentieth century, life expectancy was 59 years for women and 56 years for men. A girl born in New South Wales today can expect to live to 85 and a boy to 81.

*Migration* into New South Wales from other states and from overseas is more variable than either the fertility rate or life expectancy. The modelling anticipates average net migration to New South Wales of 41,000 people per year. This figure comprises net overseas migration *into* New South Wales of nearly 60,000 people each year, offset by the net interstate migration *out* of New South Wales of around 19,000 people each year for the next 40 years. That first figure of 60,000 overseas people coming into New South Wales is about 28 per cent of total net migration into Australia.

Population trends vary significantly across New South Wales, with regional areas more likely to experience lower rates of growth and more ageing, but with opportunities for technological advancements to change the way people work (see Box 1).

### Box 1

#### Regional New South Wales

Today, regional New South Wales<sup>3</sup> makes up just over one third of the total population. Over the last year, about half the State's new jobs were created in regional centres. Just under 60 per cent of these were found in the health and education sectors, with jobs growth otherwise split between accommodation, mining and transport.

While recent outcomes for regional New South Wales are strong, the regions are not immune to some of the challenges outlined in this Report. In particular, the analysis projects that population growth is expected to slow and the proportion of people living regionally is expected to decline slightly. Ageing too could be more pronounced in the regions with the proportion of aged persons expected to remain well above state averages. Strategies to address ageing will be especially important in these areas.

Of course there are major variations across regional New South Wales. Some centres — such as Wagga Wagga, Singleton and Queanbeyan — have aged dependency ratios (the ratio of those aged 65 and older to those aged between 15 and 64) markedly below the state average, and others have recorded robust population growth.

Other trends will affect the regions. It could be that technology and the growing 'virtualisation' of the workforce is an enabler of the regions. Technology may allow employees of the future to avoid the higher housing costs and congestion generally found in the Sydney metropolitan area. The significant investment in regional infrastructure already underway will also support greater mobility.

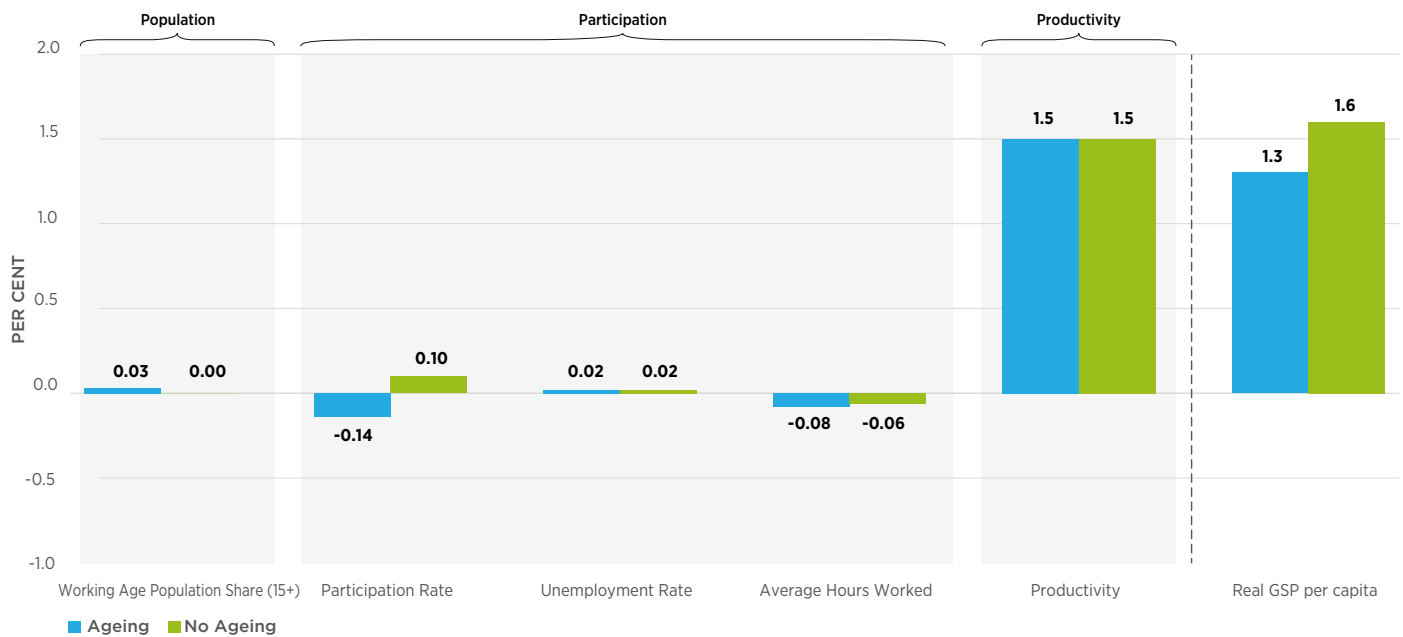
<sup>2</sup> The age composition of the population determines the working age population (15 and over). Participation rates determine the size of the total labour force and split between full-time and part-time employment. Productivity is economic output per hour worked

<sup>3</sup> In this Report, 'regional New South Wales' is generally defined as all of New South Wales except the Sydney Metropolitan area and the Central Coast

Workforce **participation**, the proportion of people over 15 years and over seeking or in employment, is projected to fall from 64 per cent today to 59 per cent in 2056 as the population ages. This is despite a marked increase in the share of older people who participate in the workforce, including many who will work beyond the ‘traditional retirement age’ of 65 (Box 2). Consider this: in 1976, there were seven people of traditional working age (15–64) for every person over 65. By 2056, that number could drop to below 2½.

As shown in Chart 1, it is the natural effect of ageing on workforce participation that slows the growth of real GSP per capita. Ageing is expected to reduce growth in real GSP per capita by an average of around a quarter of a percentage point each year over the next 40 years. This means that by 2056, real GSP per capita is projected to be around nine per cent lower than it would be without ageing.

**Chart 1 Ageing effects on per capita GSP growth: 2014–15 to 2055–56**



Source: NSW Treasury

**Productivity** captures how efficiently we employ our labour to produce goods and services. Chart 1 highlights how productivity growth is by far the biggest contributor to growth in GSP per capita and is the greatest determinant of future living standards. We have modelled NSW’s productivity to grow at 1.5 per cent a year, as it has for the last 25 years.

We know, however, that productivity does not increase by itself. Strong productivity growth followed the reforms of the 1980s and 1990s, including trade liberalisation, financial market deregulation, floating of the currency and competition policy reforms. Only good policy choices and innovations across the economy — public, private and not-for-profit sectors — can drive future productivity growth to match the achievements of the past.

If we can increase labour productivity by 1.5 per cent a year, our analysis indicates the NSW economy could grow at around 2.3 per cent each year over the next 40 years. That would make it worth \$1.3 trillion in 2056 in today’s dollars — more than 2½ times its current size. Based on that modelling, a person living in 2056 can expect an income that is on average 73 per cent higher than today. Real GSP per capita will rise from \$67,000 today to \$116,000.

Although an ageing population is our demographic destiny, an economic growth rate around 2.3 per cent is not set in stone. As a community, we have options and must make choices that can change how our future evolves.

**Productivity growth is by far the biggest contributor to growth in GSP per capita and is the greatest determinant of future living standards.**

**Box 2****Jobs of the future**

Where we work and how we work has changed significantly over the last 40 years and there is a good chance that the changes over the next 40 will be even more profound.

In 1976, manufacturing provided 20 per cent of all jobs. More broadly the producer industries — including manufacturing, construction and agriculture — as a whole accounted for about 40 per cent of jobs.<sup>4</sup> Today, manufacturing makes up seven per cent of NSW jobs, while the services sector employs around 80 per cent of the workforce. In fact, the services sector has been responsible for nearly all the new jobs created since the mid-late 1960s. New South Wales has seen strong jobs growth, in particular, in the health and professional services sectors (for example, engineers, computer system designers, accountants, lawyers and scientists).

A World Economic Forum report on The Future of Jobs predicts future growth will come in the arts, engineering, artificial intelligence, robotics, nanotechnology, 3D printing, genetics and biotechnology industries.<sup>5</sup>

The growth in the services industry and a sharp increase in female participation have also coincided with a vast improvement in workplace flexibility. In 1976 for instance, only 43 per cent of women were active in the labour market and part-time workers (most of whom are female) made up only around 15 per cent of the total.<sup>6</sup> Today, that's closer to 60 per cent and 30 per cent respectively.

As we head toward 2056, it is possible that workplaces will be even more flexible than today. A report by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) suggests technological change and the rapid growth of the peer-to-peer and freelance employment markets will drive this move.<sup>7</sup> According to the report, business may increasingly outsource to specialist contractors and consultants. They, in turn, are more likely to work from home or use facilities where independent contractors and consultants share office space. Holding multiple jobs with multiple employers on a part-time basis (portfolio careers), telecommuting and remote working may become the norm rather than the exception, in some industries.

The charts below show workforce participation today and in 2056 by age group. Although an ageing population will result in lower overall participation, we project that a higher rate of older people will be working, which contributes to and results from healthier ageing. This includes rapid growth in people working beyond traditional retirement age — by 2056 over 18 per cent of all people aged over 65 are expected to still be in the workforce, compared to only 12 per cent today. Meanwhile youth participation rates will drop as young people stay in education for longer.

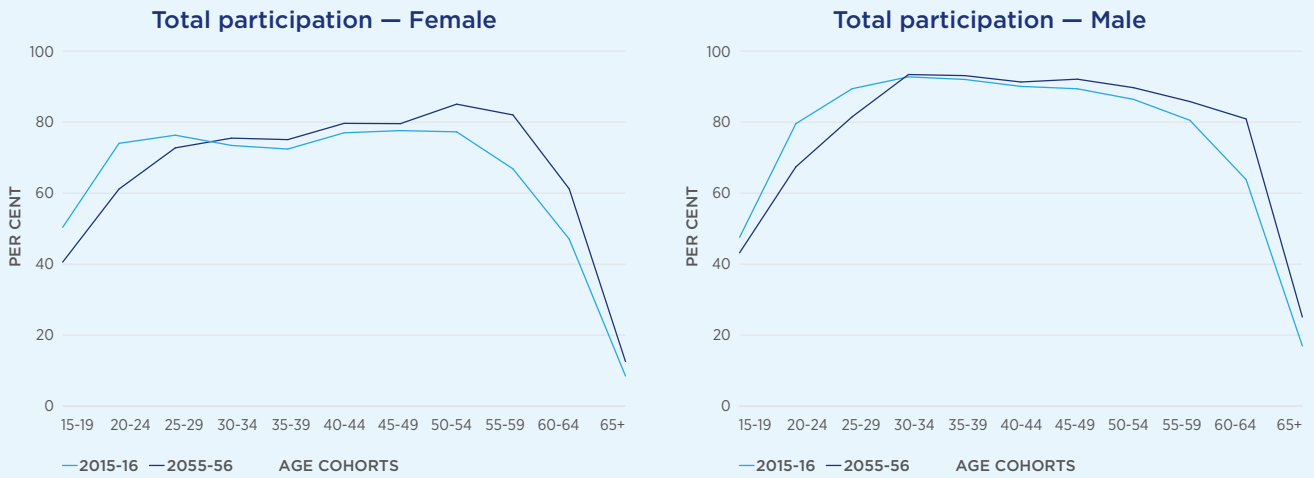
<sup>4</sup> Data is from the Australian Bureau of Statistics Year Book Australia, 1301.0. Production industries are defined as construction, manufacturing, mining, agriculture, electricity, gas, water and waste

<sup>5</sup> World Economic Forum, 2016. The future of jobs: employment, skills and workforce strategy for the fourth industrial revolution. World Economic Forum, Geneva, Switzerland

<sup>6</sup> Australian Bureau of Statistics, 2016. The Labour Force (cat. no. 6203.0) and Labour Force Australia (cat. no. 6202.0). ABS Canberra

<sup>7</sup> Hajkovicz, S., Reeson, A., Rudd, L., Bratanova, A., Hodggers, L., Mason, C., Boughen, N., 2016. Tomorrow's Digitally Enabled Workforce: Megatrends and scenarios for jobs and employment in Australia over the coming twenty years

Chart 2 Workforce participation rates by age cohort and gender



Source: NSW Treasury

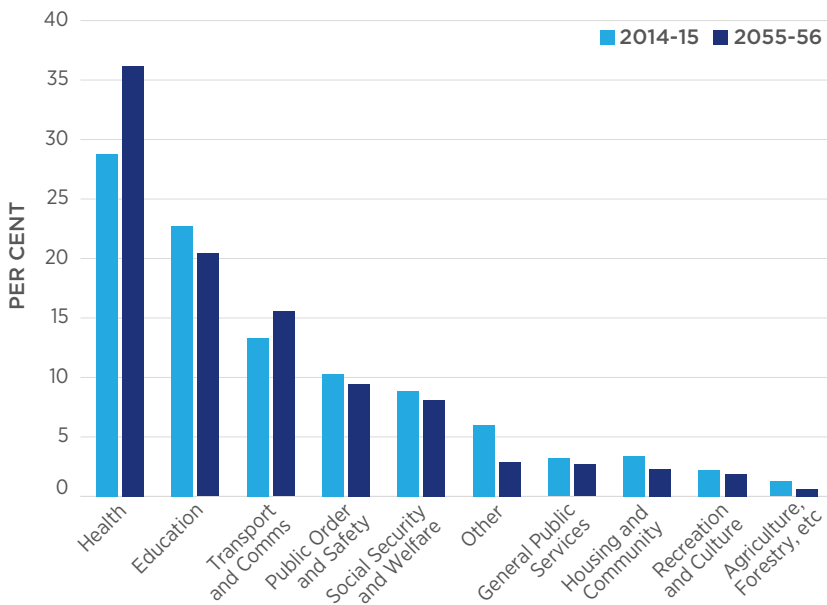
## 2. Future challenges

### Demand for services and infrastructure is increasing

In 2014-15, the NSW Government spent \$64.5 billion on services, including health, education, transport and other services.<sup>8</sup> That is 12.6 per cent of our state's total economy.

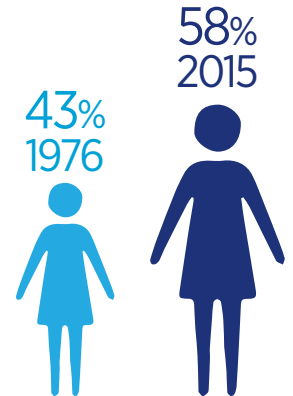
Our modelling projects that, if current trends continue, overall expenses will grow at 5.3 per cent a year and reach 15.9 per cent of GSP by 2056. The share of expenses in each area for 2014-15 and 2055-56 is shown in Chart 3 and highlights a relative resource shift from education to health over time. This resource shift reflects the ageing of the population, as an older population is more likely to require health services and will have a relatively smaller share attending school or vocational education.

Chart 3 Share of expenses by service area, 2014-15 and 2055-56



Source: NSW Treasury

### FEMALE PARTICIPATION IN THE LABOUR MARKET



The growth in the services industry and a sharp increase in female participation have also driven a vast improvement in workplace flexibility.

<sup>8</sup> In this Report, expenses reflect the annual cost of providing services (excluding interest) and expenditure is expenses plus net capital expenditure



**Health services are by far the largest component of projected expense growth. We anticipate growth of 6.3 per cent per year in health costs over the next decade, mostly in the hospital system.**

Two factors contribute to future expense growth trends. First, the ageing population will put pressure on services, particularly health. Second — and more importantly — as household incomes have increased, we have expected government to deliver more and higher quality services. If these trends continue, the cost of service delivery will climb by 5.3 per cent each year — outpacing revenue growth and placing the State’s fiscal sustainability at risk.

**Health services** are by far the largest contributor to projected expense growth. We expect growth of 6.3 per cent a year in health costs over the next decade and 6.0 per cent over the long term, mostly in the hospital system. As a result, health expenses would increase from around 28 per cent of the State’s budget today to 36 per cent in 2056.

Interestingly, the largest driver of rising health costs is likely to be non-demographic. The Grattan Institute estimated that around 60 per cent of the roughly \$41 billion increase in Australian governments’ annual health expenditure between 2003 and 2013 was for “new, improved services and more services per person” with the remainder due to population growth, inflation and ageing.<sup>9</sup> It is this trend that is expected to drive health growth. Ageing is also a significant factor, contributing around 10 per cent of health cost growth.

Advances in health technology, from genomics to online apps, are likely to be a big part of these new services. New health technologies, although often expensive, radically improve our quality of life. Other innovations bring benefits such as shorter hospital stays and safer treatments. But as unit costs decline, demand often increases, so aggregate spending can still rise. For example, in the US, increased use of medical technology is contributing 40-50 per cent of yearly increases in health spending.<sup>10</sup>

**Education** accounts for the second largest share of expenses. Covering schools and vocational education and training, education contributes 21 per cent to expense growth. Our modelling projects growth of 5.1 per cent a year in education costs.

Growth in enrolments coupled with community demands for lower teacher-to-student ratios are expected to increase education spending. Education for students with a disadvantage is another important factor, as we increasingly focus on early interventions that improve life outcomes. Increases in the costs associated with students with disabilities reflect both higher numbers of those students identified and a higher investment per student.

**Infrastructure** spending was \$9.4 billion in 2015, which was 1.8 per cent of GSP.

Better infrastructure makes New South Wales a more attractive place to live and work. This includes the schools and hospitals needed to deliver education and health services. Gross infrastructure spending is projected to grow at 4.1 per cent a year to an estimated \$49 billion in 2056. More than half of that spend will be on transport (including roads), to service new housing and expand the range of residential locations within a commuting distance of employment centres.

**Housing** supply, like employment opportunities, is important for attracting people to New South Wales. This Report presents new modelling that links migration, house prices, employment opportunities and housing supply. For many years, just over 42,000 new houses were built in New South Wales. That figure dropped to just below 30,000 each year between 2006 and 2012, which did not meet demand. This is changing: New South Wales is experiencing record levels of annual dwelling approvals, which reached over 70,000 in 2015 — the highest since data collection began in 1970. Over the next 40 years, we expect around 1.8 million new homes to be built.

**Advances in health technology, from genomics to online apps, are likely to be a big part of these new services. New health technologies, although often expensive, radically improve our quality of life.**



9 Daley, J., McGannon, C., Hunter, A., 2014. Budget pressures on Australian Governments 2014. Grattan Institute, from [www.grattan.edu.au/publications/reports/post/budget-pressures-onaustrian-governments-2014](http://www.grattan.edu.au/publications/reports/post/budget-pressures-onaustrian-governments-2014)

10 Callahan, D., 2008. Health Care Costs and Medical Technology, in: Crowley, M. (Ed.), From Birth to Death and Bench to Clinic: The Hastings Center Bioethics Briefing Book for Journalists, Policymakers, and Campaigns. The Hastings Center, Garrison, NY, pp. 79–82.

## State government income growth will slow down

NSW Government revenue growth has averaged 5.7 per cent a year since 1996-97, funding increases in services and infrastructure. However, our long-term modelling suggests that revenue growth is likely to fall over the next 40 years to 4.7 per cent a year. That is well below the expected growth in services and infrastructure expenditure of 5.3 per cent a year.

We expect this slower rate of revenue growth to occur despite projected strong growth in the state's tax base of 5.4 per cent over the next 40 years. That decline is in part a result of the population ageing, which by reducing workforce participation and economic growth also lowers revenue growth. But slower revenue growth also relates to two trends in Commonwealth Government funding of the states.

The first trend is that the NSW share of national GST revenue is projected to decline. This is because NSW population growth is projected to be slower than the national average, and also because NSW per person GST funding is projected to decline from its peak of 98 cents in the dollar in 2014-15. We expect this ratio to fall to around 80 cents in the dollar early in the projection period, mostly due to the stronger recent performance of our economy relative to other states. After that it is projected to return to the long-run average of around 89 cents in the dollar.

The second trend relates to the states' and territories' dependence on Commonwealth grants for health, education, transport and other essential services. Across Australia, states collect around 25 per cent of all federal and state government revenue (16 per cent of all tax revenue), but are responsible for around 42 per cent of combined spending. To fill this gap the Commonwealth provides direct funding to the states. In 2014-15 the Commonwealth Government provided \$28 billion to New South Wales, which was equal to 41 per cent of total NSW revenue.

Commonwealth grants have been declining and are at times a volatile revenue source. These trends, if they continue, point to growth rates much lower than nominal GSP growth over the next decade. For example, the Commonwealth share of public hospital funding has fallen from 50 per cent in 1990 to around 40 per cent and is projected to fall further.

Overall, Commonwealth funding as a share of total revenue is projected to fall from 41 to 32 per cent over the next 40 years. Our reliance on state taxes will rise accordingly, from almost 40 to almost 50 per cent.

### The fiscal challenge

Clearly, our challenge is that expenditure (including net capital expenditure) is projected to grow faster than revenue over the next 40 years. The consequence of revenue growth averaging 4.7 per cent a year and expenditure growth averaging 5.3 per cent a year is a fiscal gap. Chart 4 presents revenue, expenditure and the fiscal gap as shares of the state economy (GSP). The long-term fiscal gap is projected at 3.4 per cent of GSP in 2056.

Our ageing population is the main driver of the fiscal gap. While higher incomes drive community expectations and are a key reason for growing expenses, they also generate more government revenue to offset these expenses. Ageing, however, increases expenses and at the same time reduces revenues. Ageing contributes 2.2 percentage points or almost two thirds of the fiscal gap.

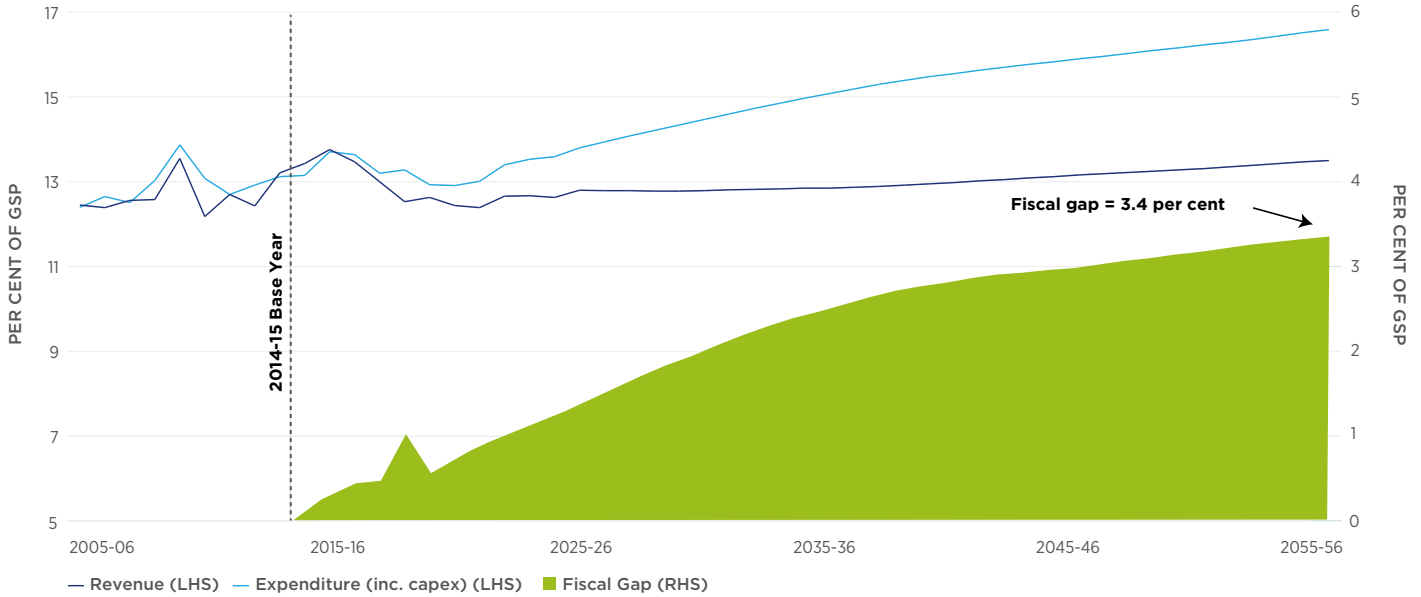
The impact of ageing on the fiscal gap is channelled mainly through health services. Health contributes around 60 per cent of the fiscal gap, reflecting that it is the largest service sector and has the fastest projected growth rate. Transport and education expenses make up the rest of the 3.4 per cent fiscal gap.

NSW GOVERNMENT  
REVENUE GROWTH  
HAS AVERAGED

 5.7%

a year since 1996-97.

Chart 4 The fiscal gap is projected to be 3.4 per cent of GDP by 2055-56



Source: NSW Treasury

Note: The fiscal gap in 2018-19 is high due to around \$3.4 billion of Public Private Partnerships recognised in that year, mostly in transport assets

If the Government borrowed to cover the fiscal gap, then by 2056 net debt would reach around 75 per cent of GDP and net interest payments would consume nearly 20 per cent of revenue. That is, if we do nothing, we would have nearly 20 per cent less revenue to deliver government services and infrastructure – this is nearly the size of our education budget today.

It is important to remember that this is not a prediction. In reality, future governments will act long before interest costs undermine their capacity to pay for services and infrastructure. The FRA, with its objective to maintain the triple-A credit rating, would require responsible fiscal management.

By focusing on the size of the potential fiscal gap we can see the challenge we face. It makes clear the need for decisions that will help set us on a healthier fiscal path. The answer to closing the gap is to moderate expenditure growth or to increase state revenues, or both, while supporting economic growth.

The resulting fiscal strength would be our legacy for future generations. It will provide a buffer against shocks and avoid the need for austerity measures in the future.





### 3. Opportunities and choices

As a state, we can place ourselves in a better position to manage future circumstances. We need to make choices about: how we strengthen the economy, how we deliver services and infrastructure, and our revenue base.

The options that follow are not policy recommendations; rather they are designed to highlight the opportunities and choices available to us as a state.

#### Strengthening the economy

**A competitive and innovative private sector** is the backbone of a strong economy. In 2015, over 85 per cent of NSW employees worked in the private sector.<sup>11</sup> With advancing technology and a changing economic environment, future governments will increasingly need to consider using 'light touch' regulation so that businesses can innovate and perform at their best. The recent entry of Uber, for instance, has led to changes in the regulatory environment of point-to-point transport services to allow new entrants to compete.

Lifting the productivity of our workforce will need policy reform by both federal and state governments. The recent Competition Policy Review pointed to human services, transport and planning — all areas of state responsibility — as important drivers of future consumer and productivity benefits.

**Migration** can add to the working age population, if New South Wales remains an attractive place to live and work. Commonwealth policies largely control migration into Australia, but the proportion of migrants who choose New South Wales depends on the state's economy compared to other states. Job opportunities and relative house prices have the biggest influence on where migrants settle. Lower house prices relative to other states, for instance, can make New South Wales more attractive and increase the traditional working age component of the population.

**Job opportunities** are the key to economic participation. Overall employment in New South Wales is projected to increase by 1.6 million to 5.2 million in 2056. In keeping with past trends, we expect over 30 per cent or more than half a million of those additional jobs to be in our regions.

We don't know exactly how we will work in the future. We do know that the jobs of the future are likely to be very different from today (Box 2). There will perhaps be an even greater emphasis on services. We expect work arrangements that make it easier for men and women to participate in the workforce at different life stages.



**The recent entry of Uber has led to changes in the regulatory environment to allow new entrants to compete.**

<sup>11</sup> Australian Bureau of Statistics, 2016. Labour Force Australia Detailed (cat. no. 6291.0). ABS, Canberra



**In solving the challenge of how to align revenue with expenses, we will have to make choices about how the government delivers high quality services in the future.**

**Education and training** policies will need to be nimble to prepare people for fast-changing jobs and work practices.

**Infrastructure** that enhances productivity is an important area of investment for both the public and private sectors, and attracts people to live here. Continuing robust planning and project-selection processes will help channel investments to infrastructure that maximises our economic potential.

**Housing** is also critical to providing for and drawing people into our state. Future housing supply will need to reflect changing household composition, including growth in households of couples and singles, and demand for dwellings close to job opportunities. Since 2012, New South Wales has seen a large uplift in residential construction, supported by this Government's focus on increasing housing supply. However, the legacy of past policies and economic conditions has led to an accumulated undersupply of around 100,000 dwellings in New South Wales. Still, the strong short-term outlook for housing construction, combined with a long-run projection of housing supply growth averaging 43,500 per year, will gradually close this gap.

More broadly, to ensure that New South Wales is an attractive place to live and work, it will be critical to have an expanded housing supply in the right locations, transport investments that improve links between housing and jobs, and adequate infrastructure that supports both population growth and the ageing nature of the population.

### **Better services and infrastructure**

Economic growth alone will not close the projected fiscal gap if our expectations of service delivery continue to grow in line with income. In solving the challenge of how to align revenue with expenses, we will have to make choices about how the government delivers high quality services in the future.

Governments can manage service demand partly through innovative service delivery. This includes how we target services, particularly complex and costly services, to the people who need them, and how we pay for them. We need to choose service providers based on quality and value for taxpayer dollars.

Technology and data will be big factors in more effective, customer-centric services. Telehealth, used to monitor patients with chronic diseases, is already reducing mortality rates, hospital admissions and the average length of hospital stays.

The Data Analytics Centre (DAC), recently established by the NSW Government, facilitates data sharing between agencies and applies best-practice analytics across the government to inform more strategic, efficient and evidence-based decision making. The DAC also leverages world class data collection tools and analytic expertise, providing the opportunity to deliver more efficient and effective public services by overcoming the silos and duplication that exists across government agencies.

One application of data analytic tools is to help identify where vulnerable people in the community access government services. This helps the development of whole-of-government policies and allows us to address issues earlier, leading to better lifetime outcomes and reducing future expenses for taxpayers. This is particularly important for health, justice, and family and community services. Successful early interventions with young people leaving out-of-home care (OOHC), for example, can reduce their likelihood of entering the justice system and improve outcomes for them and the community.

Innovative funding models that draw on such data analytics are currently being trialled. One example is social impact investment, which brings together capital and expertise from non-government and government sectors to fund better services and ties funding to measurable results.

Offering consumers choice — along with appropriate safeguards to ensure a well-functioning market — tends to make services more cost-effective, because people can best judge their own needs. For example, the National Disability Insurance Scheme will allow people with a disability greater choice over support they receive. This also means more control to choose alternative service providers.

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For all services, we need service providers to deliver the best quality and the best value for taxpayers. The development of the new Northern Beaches Hospital is an example of partnership between government and the private sector to deliver clinical excellence in an efficient and innovative way.

### **Building a sustainable revenue base**

Improving the way we deliver services and infrastructure can help to address the fiscal gap, but governments also need a sustainable revenue base to meet future demand.

Reforms to state taxes provide governments with an opportunity to support productivity and growth, and to provide a more stable revenue base that aligns with expenditure. In particular, decreasing the reliance on volatile and inefficient taxes would deliver large economic gains.

State taxation cannot fully support the NSW Government's responsibilities for services and infrastructure, so Commonwealth Government funds are necessary. Future state and territory governments are likely to remain best placed to identify and manage the expense and capital needs of their citizens. Modernising Australia's federation arrangements by aligning accountability for service spending with authority for revenue raising would allow states to ensure they have the funds to deliver the services and infrastructure taxpayers expect. A collectively agreed reform to tax or expenditure roles and responsibilities will reduce the mismatch between State and Territories' revenue-raising capacity and their responsibilities.

### **Ensuring a strong future**

Humanity's capacity to innovate — from the industrial revolution to new disruptive technologies — has allowed us to maximise opportunities in the broader economy. New technologies offer enormous potential to further lift our living standards, but breakthroughs are not inevitable.

As this Report outlines, there are actions government can take to address the challenges of the future. Choices include being more innovative with service and infrastructure delivery; improving government efficiency; being more customer-centric; and making smart investments that support increases in overall productivity and make New South Wales an attractive place to live and work. We also need to make choices about the level of services supported by government and how to best afford them.

Addressing these challenges by enabling opportunity across the community is the responsibility of this and future governments.

# 1976–2056: LIFE THROUGH THE EYES OF A TYPICAL 20 YEAR OLD

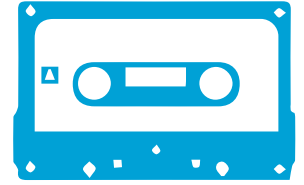
## Peter: a 20 year old in 1976

Peter is one of five million NSW residents. He was born in 1956 and is one of the many baby boomers swelling the ranks of our state's workforce. As a 20 year old, he is listening to the Bee Gees, John Paul Young and David Bowie. He recently heard about the first commercially developed supercomputer and attended the Concorde's short visit to Sydney. Peter smokes, although tobacco advertising has just been banned. Thursday night trading is making his life much easier.

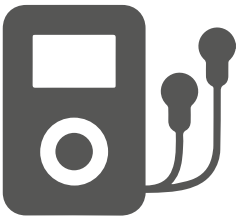
Like more than 20 per cent of the working population, Peter works in manufacturing. His job is at a white-goods factory and he plans to remain there for his career. His cousins, in regional New South Wales, have also worked in manufacturing for a while — in fact, they were working in the same plant that Queen Elizabeth visited in 1970. Like half of his peers, Peter left school before he turned 17. He has three younger siblings. His mum didn't work after she became pregnant with him. Peter's father earns all of the family's income.

Peter's weekly pay is \$178 (\$1,059 in 2016 dollars) and while he saves a deposit for a house which he hopes to soon have, he is engaged and living with some mates in a shared house near his parents. He hopes to start a family once he's married but unlike his parents, only wants two children. His dad keeps reminding him that a home will be the biggest investment he ever makes and will fund his retirement.

Peter's current life expectancy is 71. If he develops cancer, treatment would be radiotherapy. A heart attack would most likely be fatal.



**Peter is one of five million NSW residents. He was born in 1956 and is one of the many baby boomers swelling the ranks of our state's workforce. As a 20 year old, he is listening to the Bee Gees, John Paul Young and David Bowie.**



**Born in 1996 as part of Gen Y, Jessica has grown up in a world of emerging technology. She has used mobiles and laptops since she was young, and is constantly plugged in to technology, whether it be through online shopping, Snapchatting her friends or uploading photos to Instagram.**

## Jessica: a 20 year old in 2016

Born in 1996 as part of Gen Y, Jessica has grown up in a world of emerging technology. She has used mobiles and laptops since she was young, and is constantly plugged into technology, whether it be through online shopping, Snapchatting her friends or uploading photos to Instagram. She moves in a faster-paced world than her parents did at her age, where trends in music or fashion change in a moment and news stories travel around the world within minutes.

Like more than 20 per cent of her peers, she's holidayed outside of Australia in the past year. In fact Jessica took a gap year after school and lived overseas. Like her sister and many of her friends, Jessica thinks that becoming an entrepreneur or being involved in a start-up is more appealing than working for a large company. She has a flexible work schedule, juggling part time work and her second year of university. After she graduates, her first full-time job may be in the growing healthcare industry or in the services sector as an accountant, engineer or computer system designer. Like her mother Jessica is more likely to work than her grandmothers did, and more likely to balance work with childcare.

She is now one of 7.6 million people in New South Wales. While saving up for a home, she is living with her mum and dad but thinking of moving to a shared home close to the city. Her cousins from regional New South Wales may move in with her if they land a job in the city. As her parents' generation continues to age, she's hoping to eventually get her own flat nearby.

Jessica isn't planning to have children before she's 30 and expects to still be around when she's 85. At Jessica's age her mother and father could have expected to live to around 79 and 73 years respectively. Healthcare for Jessica is different from 40 years ago. Her friends are all vaccinated and have never seen polio, measles or mumps. Her mum just had radiation therapy for breast cancer. It was detected early through magnetic resonance imaging (MRI) so her prognosis is good. 40 years ago it would likely have been terminal.

By 2030, Jessica's generation — Gen Y or the Millennials — will form the largest share of the population. By the time she retires, she will have contributed to superannuation for her entire working life, allowing a more comfortable retirement. She is also expected to be healthy and active longer into older age.

### **Zachary: a 20 year old in 2056**

As one of 11.2 million people in New South Wales, life will be very different for Zachary. He will be part of an extremely tech-savvy generation, where the virtual and the real world operate together.

As part of a large and wealthy economy, which is expected to be 2½ times its size in 2016, Zachary will be earning more than previous generations and his standard of living will be almost two times higher than his grandparents.

Zachary will likely live in the city as New South Wales becomes increasingly urbanised. More buildings have been constructed in Sydney and in the surrounding areas, including along the City North corridor and in Western Sydney. Zachary will live close to work in an apartment which is part of an energy-efficient, mixed-use development surrounded by amenities like floating parks (on top of buildings), schools and day care centres. He will regularly visit his parents in regional New South Wales, where after moving out of the city they will live semi-retired and work remotely to help pay bills.

To get to work, Zachary will walk or take public transport. He will use one of the city's public driverless electric cars to visit family in the suburbs or get out of the city on his days off. The automation of the driving process means that vehicles will operate in harmony and traffic flows more quickly, efficiently and safely.

Both Zachary and his parents will expect to live longer and they will all spend more money on staying healthy. While 'active-wear' was fashionable in 2016, 'smart-wear' will be the reigning fashion trend in 2056. By embedding smart technology into clothing, Zachary monitors his own health and well-being for signs of stress or illness. Medical breakthroughs may allow Zachary's doctor to treat him immediately for a common cold before he starts showing symptoms and feeling sick. His healthcare will be customised to his lifestyle, medical history, genome and preferences.

Zachary will work in the service sector as a freelance creative design teacher — a highly paid job. He will expect to stay healthy and work well past the 'traditional retirement' age. He will be part of a diverse and multicultural society. Part-time and flexible work arrangements will be normal and his female friends will be around 33 years old when they have their first child, compared to around 30 in 2016.



**Zachary is one of 11.2 million people living in New South Wales in 2056. He is part of an even more tech-savvy generation, where the virtual and the real world operate together seamlessly.**